DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voegele in US 6725014 B1, and further in view of Mathewson in US 20050073416.

Consider claims 1 and 6, Voegele discloses a method and an apparatus comprising a transponder (22, 24 and 26) comprising, an antenna, a memory, and a means for reflecting and modulating, i.e. RF Circuitry, an inquiry signal received from a communicator, wherein said reflected signal includes a data-carrying modulation, wherein the reflected signal is read by the communicator, i.e. base station10, See col. 1 l. 36-62, and wherein said data-carrying modulation includes a check sum calculated on the basis of data stored in the transponder memory, i.e. fuse link code,

Voegele discloses a passive tag typically includes an antenna and a semiconductor chip comprising radio frequency ("RF") circuitry, logic and a non-volatile memory unit. Further, a time-varying electromagnetic RF signal (carrier signal) that is typically transmitted by a reader located at a base station energizes the passive tag. The RF receiver at the base station may receive, demodulate and pass to the reader

return signals from the plurality of RF tags in the reader's field of view. The passive tag may employ a process called a backscatter modulation to send data to a reader, See col. 1 l. 36-62.

Voegele discloses a reader may send to a plurality of tags a range-instruction signal that indicates a specified range of values of the first identification register. The instruction signal may instruct the tags to respond (i.e., to clock out their full identification values onto the RF carrier) if the value in their first identification register falls within the specified range. Each tag may thus have logic arranged to determine whether a value on a given identification register is within a specified range and, if so, to responsively transmit its identification code and a checksum, See Col. 3 l. 63 to col. 4 l. 5.

Checksum 78 may be an 8-bit checksum, and it may be computed by adding data contained in fuse link codes, col. 8 l. 1-3.

Voegele does not explicitly disclose wherein the transponder includes a check sum stored permanently in the transponder memory, in an analogous art, Mathewson discloses checksum is preferably stored in, and read from, an RFID tag affixed to the transaction receipt, See ¶ 22.

It would have been obvious to an ordinary skilled artisan at the time of invention to modify the invention of Voegele and store the check sum in the tag for the items that are purchased so when the customer try to return the item the cashier will know that item was purchased at the store and was not stolen.

Consider claim 4, a method according to claim 1, wherein the calculation of the check sum in the communicator does not include the transponder check sum transmitted by the transponder, See ¶ 37, Mathew discloses when the checksum on the receipt tag is not matches with the item, then the system will indicate there is theft involved.

Consider claim 5, a method according to claim 1, wherein the calculation of the check sum in the communicator includes the transponder check sum transmitted by the transponder, See ¶ 37, Mathew discloses if the items 330 in the shopper's possession at checkout are the same items 300 that were presented and purchased at the point of sale, then the checksums will be identical, and the test in Block 470 will have a positive result, indicating that there is no theft (Block 475).

3. Claims 2, 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Voegele in US 6725014 B1, in view of Mathewson in US 20050073416, and further in view of Daniels in US 20040250028.

Consider claims 2 and 7, a method according to claim 1 and a transponder according to claim 6, wherein the check sum stored in the transponder is calculated using a first algorithm that is identical for a first group of transponders and that is different from an algorithm used for other groups of transponders, Voegele discusses

that the reader may first check to see whether the tags in its field of view have identification codes falling within a given range of values. Once a match for a range search is found, LD/S output logic 80 may load the tag's identification to the registers and shift out the identification value to reader 14. Voegele discusses different masking technique to read different groups of tags, which is described in col. 4 l. 24-37 and col. 8 l. 41-57. Mathewson discloses computing a first checksum over selected portions of the identifying information that has been read from the tag, and computing a second checksum over selected portions of the identifying information that has been read for each, See ¶ 21.

In an analogous art, Daniels teaches that a variety of different algorithms may be used to calculate the checksum information, See ¶ 31.

It would have been obvious to an ordinary skilled artisan at the time of invention to modify the invention above to use the MSB for grouping the tags and creating a checksum based on the common bits of the group which will be different for the masking bits of another group, thus identifying the transmission from each range of tags.

Consider claim 3, a method according to claim 2, wherein the calculation on the basis of the first algorithm takes place in the communicator with each reading of a transponder; Mathewson discloses a checksum generator component 340, which performs the same computations as checksum generator component 310 of FIG. 3A (and which may be embodied within the RFID reader 335) See ¶ 37, and including the

step of comparing the calculated check sum with the stored transponder check sum transmitted with the reflected signal, Mathewson discloses a checksum comparison component 345 then compares the two checksums (Block 465) to determine whether they match (Block 470), See ¶ 37.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Talagala, Nisha D. et al. US 20020162075 discloses FIG. 7A shows one embodiment of multiple levels of checksums. In this embodiment, the extent checksum is calculated directly from the extent of data it verifies. Because the extent checksum is calculated directly from the data (as opposed to being calculated from the unit checksums for that data as shown in FIG. 7B), a different checksum algorithm may be used when calculating the extent checksum than when calculating the unit checksums for the same extent of data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omer S. Khan whose telephone number is (571)270-5146. The examiner can normally be reached on M-F 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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